

Section Eight

Mitigation Action Plan

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8.1 IFR Requirement for Mitigation Action Plan

Section §201.4(c)(3) of the IFR states that “[to be effective, the plan must include] the State’s blueprint for reducing the losses identified in the risk assessment.”

Note: The IFR refers to this “blueprint” as a “Mitigation Strategy”. However, as described in Section One, the State of Louisiana uses that phrase to encompass all aspects of hazard mitigation planning and programs. The State refers to this part of the documentation as the “Mitigation Action Plan”.

The IFR includes three specific requirements that relate to the development of a Mitigation Action Plan for the State of Louisiana:

- **Hazard Mitigation Goals per Requirement §201.4(c)(3)(i):** “[The State shall include a] description of State goals to guide the selection of activities to mitigate and reduce potential losses.”
- **Mitigation Actions per Requirement §201.4(c)(3)(iii):** “[State plans shall include an] identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy.”
- **Funding Sources per Requirement §201.4(c)(3)(iv):** “[The State mitigation strategy shall include an] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.”

The Mitigation Action Plan [will go] beyond the minimum IFR requirements by developing a tentative timeframe for implementing these actions and determining the responsible parties for the individual actions listed below. While the Mitigation Action Plan [will identify] actions to be taken primarily by the OHSEP and the SHMPC over time, interactions and participation by other state agencies [will also be] considered important parts of the program.

¹ **Note to Draft Plan Reviewers:** Subsections 8.4 through 8.6 will be completed after comments are received from interested parties regarding the information contained in the Draft Plan. See explanation on page 8-X.

The information in this section is presented as follows:

- Goals and Objectives;
- Plans of action to meet the Goals and Objectives;
- Evaluation of action items;
- Prioritization of action items; and
- Identification of potential funding sources.²

8.2 Goals and Objectives

As explained in Section One, the State has set to work implementing a Hazard Mitigation Strategy of which this Plan is a key part. The Strategy has a common guiding principle as expressed through the mission statement:

Louisiana's Hazard Mitigation Strategy is the demonstration of the State's commitment to reduce risks from hazards, and serves as a guide for State decision makers as they commit resources to reducing the effects of hazards.

To help implement this Strategy and adhere to this mission statement, preceding sections of the Plan have been focused on identifying and quantifying the risks faced by the residents and property owners in the State of Louisiana from natural and manmade hazards. By articulating goals and objectives, the Plan sets the stage for identifying, evaluating and prioritizing actions to be promoted at the local and parish level and to be undertaken by the State for its own property and assets. For the purposes of this Plan, goals and objectives are defined as follows:

- **Goals** are general guidelines that explain what the State wants to achieve. Goals are expressed as broad policy statements representing desired long-term results.
- **Objectives** describe strategies to attain the identified goals. Objectives are more specific statements than goals; the strategies are usually measurable and can have a defined completion date.

The goals and objectives were based on the findings of the Statewide Risk Assessment (Section Five) and the Risk Assessment for State-Owned Assets (Section Six). The SHMPC identified preliminary goals and objectives during a facilitated "brainstorming" session the week of August 4, 2004. The SHMPC reviewed and refined the goals and objectives at working sessions held on September 22-23 and December 1-2, 2004. Representatives of the OHSEP and members of the SHMPC participated. Table 8-1 lists the goals and objectives developed by the SHMPC:

Table 8-1: State of Louisiana Hazard Mitigation Plan - Goals and Objectives

Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.	
1.1 Objectives for Statewide outreach and education efforts:	
▪ Increase the awareness and understanding of the advantages of mitigation of the general public and local government officials.	
▪ Increase local government official awareness about funding opportunities for mitigation.	
1.2 Objectives for outreach and education efforts for state agencies:	
▪ Increase the awareness and understanding of the advantages of mitigation of state agency heads.	

² Note to Draft Plan Reviewers: See Footnote 1.

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Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

2.1 Objectives for statewide data-related efforts:

- Improve data available to parishes and communities for use in future planning efforts.
- Provide parish and local officials and local practitioners with educational opportunities and information regarding available tools to effectively use risk and related data.
- Improve communication of updated data and information from parishes and communities to the OHSEP.

2.2 Objectives for data related efforts for state agencies:

- Improve data available to state agencies for use in future planning efforts.
- Improve communication of updated data and information from state agencies to the OHSEP and the SHMPC.

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

3.1 Objectives for supporting local hazard mitigation planning:

- Support hazard mitigation planning at the local and parish level.
- Integrate local mitigation plans into the *State of Louisiana Hazard Mitigation Plan* as part of periodic monitoring, evaluating and updating of the Plan.
- Support increased NFIP / CRS participation.

3.2 Objective for supporting state agency hazard mitigation planning:

- Provide information regarding techniques for state agencies to undertake detailed vulnerability and risk assessments for their own planning efforts and prioritization of funding.

Goal 4: The State of Louisiana will pursue opportunities to reduce impacts to the State's manmade and natural environment through construction projects.

4.1 Objective for providing technical assistance:

- Provide technical assistance to local communities, parishes and state agencies regarding best practices for mitigation.

4.2 Objective for identifying cost effective projects:

- Facilitate development and administration of project applications that will meet state and Federal guidelines for funding.

4.3 Objectives for State-owned assets:

- Harden and retrofit infrastructure and critical facilities with highest vulnerability rankings.

8.3 Identification of Mitigation Actions

Goals and objectives from Section 8.2 are repeated below and a Plan of Action is described for each coherent set of objectives. In some cases, one plan of action addresses multiple objectives while some objectives are associated with a small set of specific action items.

It is also important to note the following. The actions listed below are considered by OHSEP and the SHMPC as the appropriate steps to meet their goals and objectives. However, it will clearly take more than three years – the planning horizon identified in DMA 2000 - to implement the listed actions even under the best of conditions. Therefore, the SHMPC [will undertake] a process to prioritize and schedule these actions by defining a logical sequence and identifying realistic expectations of what will be possible in the next three years. However, the entire list is established and recorded for future reference as the Plan is updated and refined over time.

Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.

1.1 Objectives for statewide outreach and education efforts:

- Increase the awareness and understanding of the advantages of mitigation of the general public and local government officials.
- Increase local government official awareness about funding opportunities for mitigation.

Plan of Action to address 1.1 Objectives for statewide outreach and education efforts:

- A. Define and support implementation of a public outreach and education program to advise residents, business owners, potential property buyers, visitors and government officials about hazards, hazardous areas and mitigation techniques they can use to protect themselves and their property. For example, measures used to educate and inform the public include: existing state websites, toll-free “hot-line” information services, Public Service Announcements (PSAs), speaker series, demonstration events, insurance and real estate disclosures, and training.

The specific action items include:

- i. Develop and implement a staffing plan for statewide outreach and education efforts. Per the summary analysis in Section Seven, staffing levels at OHSEP have barely been adequate to address grant administration responsibilities in the past and the agency would not be able to meet time commitments for an increased public outreach and education effort without additional staff positions. At the time this Plan was developed, OHSEP had initiated steps to increase staff dedicated to mitigation programs. OHSEP is in the process of developing job descriptions and responsibilities to reflect anticipated grant administration workloads and to support the recommendations of this Plan including designating responsibility for outreach and education efforts ³.
- ii. Identify existing public information resources and programs conducted by state agencies related to hazard mitigation. The intent is to make sure all relevant aspects of hazard mitigation are covered in a statewide public information program; capitalize on efforts that have already been initiated; and avoid duplication of efforts. Examples of on-going efforts for specific hazards include:
 - Flood – including DOTD efforts to develop the *Louisiana Floodplain Management Desk Reference / EZ Guide* in cooperation with FEMA, and the LouisianaFloods.org website hosted by the LSU AgCenter ; and
 - Subsidence – including DNR efforts to develop public awareness regarding the Coast 2050 program via the USACE Louisiana Coastal Area *Ecosystem Restoration Study*.

³ Volume II of the State of Louisiana Hazard Mitigation Strategy [will include] up to date information about OHSEP staffing.

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- iii. Explore options and create tools for OHSEP to use in outreach efforts including:
 - Presentations at regularly scheduled events that attract target audiences (e.g., the annual conference of local EMA directors, the Louisiana Association of Floodplain Managers, etc.);
 - Periodic video conferences to provide updates and general training for broad audiences; and
 - Facilitating the connection between EMA's both between and within parishes to foster the sharing of information. For example, there are usually different agencies within each parish that have responsibilities for building code enactment and enforcement, local land use planning, etc.
- iv. Identify and solicit support and participation by other state agencies and parties that may have an interest in public outreach and education efforts for selected hazards and/or an established method for communicating this type of information to address other gaps in the program. Examples of non-state agencies with access to parishes and communities throughout the state include the Louisiana Association of Planning and Development Districts and the Louisiana Municipal Association.
- v. Work with Public Information Officer(s) within OHSEP and other state and local agencies to develop and distribute a common message to accompany public outreach and education efforts related to hazard mitigation. The basic theme of this message is to develop public awareness of a full range of hazards; identify common resources and methods to address these hazards; and provide state agency and interested party contacts for further information. The intent is to take advantage of as many avenues as possible to impart useful information to the public and to make sure the efforts of state agencies are as coordinated as possible. The intent is **not** to develop a "one size fits all" information program that all state agencies would have to use and apply in all situations.

One "kick-off" possibility would be to sponsor a contest among school age groups and/or interested parties to develop a "catch phrase" to use in hazard mitigation outreach efforts. The contest could include development of a poster or web posting that would show how the phrase could be used as a backdrop for different mitigation-related messages.
- vi. Develop materials to support delivery of the message including website postings, presentations, brochures, posters, etc.
- vii. Distribute materials to partner agencies and interested parties.
- viii. Periodically seek feedback from partner agencies and interested parties to determine needs for additional information, and alternative methods to seek additional audiences (e.g., school programs, university degree programs in planning, etc.). Note: This will be most effective if a baseline level of understanding of basic mitigation concepts and available resources is determined at the outset of the outreach and education efforts.

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Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.

1.2 Objectives for outreach and education efforts for state agencies:

- Increase the awareness and understanding of the advantages of mitigation of state agency heads.

Plan of Action to address 1.2 Objectives for outreach and education efforts for state agencies:

- B. Develop and implement an "internal" state agency mitigation information sharing program (parallel to the public outreach and education program under Plan of Action A.) - including the following:
- i. Develop and implement a staffing plan for outreach and education efforts with state agencies.⁴ Part of the staffing plan for OHSEP (as identified under Plan of Action A) should include on-going training to increase capabilities of individual staff and to stay abreast of current programs and policies. These training sessions should also be available to members of the SHMT and SHMPC.
 - ii. Solicit and secure participation by state agencies that are not already member agencies on the SHMT or represented on the SHMPC (especially those identified in the Plan as having critical facilities at risk) including establishing contact people and preferred methods for future exchanges of information.⁵
 - iii. Provide results of the Risk Assessment for State-Owned Assets (per Section Six and Appendix F) and recommended procedures for "ground-truthing" information (see related information under the Plan of Action D under Goal 2) to participating state agencies. Procedures should be supported by "job-aids" that could include reference materials, assessment criteria, and checklists for buildings and State-owned assets.

Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

2.1 Objectives for statewide data-related efforts:

- Improve data available to parishes and communities for use in future planning efforts.
- Provide parish and local officials and local practitioners with educational opportunities and information regarding available tools to effectively use risk and related data.
- Improve communication of updated data and information from parishes and communities to the OHSEP.

Plan of Action to address 2.1 Objectives for statewide data-related efforts:

- C. Support implementation of a coordinated approach to statewide data collection, use and sharing since the mitigation planning process is fueled by data and the quality of the results are tied to the quality and quantity of available data. One of the basic concepts behind DMA 2000 requirements is the sharing of data between states and local governments to enrich planning at both levels. Although much has been accomplished, there are still a number of data deficiencies indicated in the Plan that limit the utility of local, parish and state planning efforts. To address these limitations in the most cost effective way, this plan of action builds on previous efforts as much as possible and looks for opportunities for gathering data that will prove useful to a wide range of users.
- i. Develop and implement a staffing plan for statewide data improvement efforts.⁶ In addition, as part of subsequent steps in this plan of action, determine and periodically refine funding needs to address specific data deficiencies.

⁴ As part of the same effort identified under Action Item A.i. et al.

⁵ This process has already been initiated as described in Section 3.3 - Coordination among Agencies and Interested Parties.

⁶ As part of the same effort identified under Action Item A.i. et al.

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- ii. Encourage parish and local officials to “ground-truth” data and results from the Plan. The planning process to date has been effective by using existing information. However, to provide the best results for reducing the impact of natural and manmade hazards over time, it is important to enlist the help of local officials to:
 - Validate and improve wherever possible on the study methodology;
 - Disseminate and collect information from local governments and other state agencies; and
 - Support the process of identifying appropriate eligible mitigation projects at the parish level and within other state agencies.

For example, per Section Five (and Appendix E), the HAZUS-MH local critical facilities inventory was currently the best data available to the State to conduct a statewide risk assessment of the potential impacts on these facilities. However, this data was assembled “second hand” from available data listings that can quickly become outdated. To attain more useful results for future assessments, it is recommended that the data be reviewed and verified by local governments to ensure that the information used in this Plan reflects:

- whether critical facilities that are in the HAZUS-MH data base still exist;
- the existence of facilities that have been recently constructed (that may not show up in records used to compile the HAZUS-MH database);
- accurate georeferenced locations (i.e., latitude and longitude) of critical facilities if available; and
- other relevant attributes (e.g., first floor elevations of structures that are prone to flooding).

At the same time, it would be possible to encourage local governments to collect additional information in a uniform and consistent manner. The process could be conducted by the appropriate public entity, private sector, or academia, or a combination of all three. The ground-truthing efforts could entail site visits, or if the local governments already had an up-to-date list of facilities with the address and cost (hopefully as part of their parish or local level mitigation planning efforts), their mapping software could be used to determine a geographic location without the need of re-collecting the data.

Similar to Action Item B.iii, OHSEP could support the process by providing templates of data collection forms with guidance for issues to look for based on the types of hazards. Alternative means of ground-truthing the statewide data are broadly drawn as follows:

- Web site portal – Encourage Louisiana state agencies with responsibility for data management to develop a data portal for entering and exchanging data about critical facilities. This would result in a dynamic population of data that could be used in risk assessment models without a lot of manipulation and reformatting of the data. OHSEP could send correspondence to the local governments to explain the purpose and intended outcomes, the process for downloading existing data for their parish, ways to ground-truth the data, and how to upload/enter the data into the portal. The web site would include helpful information about the overall process and existing data (e.g., year collected/updated, projection, etc.). This could also be part of a system whereby the local communities access data from the state. The highest degree of success might be to introduce the web site and its operation by conducting a workshop with local governments to explain the process. To hold down costs and use resources most efficiently, this could be done at a routinely scheduled state workshop or a series of area coordinator meetings.
- Written correspondence – Send a letter and CD-ROM with existing critical facilities data to each parish with an explanation of the process. Request that each parish ground-truth their data and e-mail it to a central point of contact at the State who would have responsibility for compiling all of the data into a State-owned / or maintained database.

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- iii. Work with parish and local officials to make sure that all parties understand what data already exists or will be available for their use within reasonable timeframes. One example of flood-related data that will be available soon is work by the University of New Orleans that was on-going as this Plan was developed. This work, funded by FEMA, is intended to create a comprehensive GIS and database of repetitive loss properties in the State of Louisiana.

As part of this effort, it will be important to explain what can and cannot be done with specific data. For example, parish officials already have access to some lists of repetitive loss properties within their jurisdictions. This includes information about property owners that is considered confidential under the Privacy Act. If local officials do not place the proper restrictions on access to certain parts of this information, they can seriously diminish the effectiveness of future efforts to acquire or pursue mitigation for these properties.

- iv. Provide and support training for parish and community officials in concert with general outreach and education efforts under Plan of Action A. For example, FEMA recently developed a Risk Assessment Workshop that is targeted to local communities that do not have high capabilities or extensive data sets but still want and need useful risk assessment results. OHSEP should work with FEMA Region VI to have the workshop delivered for targeted local communities and to seek training for OHSEP staff and other interested parties (such as local planning and engineering firms) to conduct subsequent trainings.
- v. Integrate data from local risk assessments into future updates of the Plan. Sections 9.3 and 10.2 of the Plan include specific steps that the OHSEP and SHMPC will undertake in working with parishes and local communities to evaluate and integrate information from local plans into the Plan to be in compliance with DMA 2000 requirements.

Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

2.2 Objectives for data related efforts for state agencies:

- Improve data available to state agencies for use in future planning efforts.
- Improve communication of updated data and information from state agencies to the OHSEP and the SHMPC.

Plan of Action to address 2.2 Objectives for data related efforts for state agencies:

- D. Support implementation of a coordinated approach to data collection, use and sharing for State agencies to validate and disseminate results of the Risk Assessment for State-owned Buildings, Critical Facilities and Infrastructure similar to the Statewide Risk Assessment results addressed in Plan of Action C. For example, the critical facilities in Louisiana with the ten highest combined loss estimates for each hazard as summarized in Section Six (and detailed in Appendix F) should be verified by ground-truthing to determine if the loss estimate methodologies are reasonable and to gather more detailed information to help facility managers and the State of Louisiana determine what the best course of action will be in terms of mitigation.
 - i. Develop and implement a staffing and funding plan for data improvement efforts with state agencies.⁷
 - ii. Encourage state agency heads and facility managers to “ground-truth” data and results from the Plan. The processes and methodology for identifying and profiling hazards and determining the loss of function for state-owned facilities has been detailed in Section Six and Appendix F. The methodology provided the State with a ranking for all facilities that had previously been identified as critical in the State’s Facility Management database. Using the criticality for each structure, along with vulnerability to a particular hazard, loss of function, physical damage, and content damage, the SHMPC determined

⁷ As part of the same effort identified under Action Item A.i. et al.

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the facilities with the highest loss estimates for each hazard and the combined loss for all hazards. Once determined, a list was generated that would allow the State to not only identify individual facilities at risk, but assign priorities for future mitigation actions. This list will give the State a defined agenda on which structures should be investigated to see if the overall process and methodologies are sound.

What will improve the process? Data, and data can be defined as many things. For this process data can be:

- An updated Facility Management database with accurate information that has been verified by the State;
- Improved information about a given hazard, such as accurate flood data for the State that will help determine the base flood elevation for a given structure;
- Base map data, such as contours and soils; and
- Historical information, to include when building codes were enacted.

Better data and better accuracy will support the process and methodology in which the responsible parties will be able to investigate highest ranked critical facility on the list and either provide proof of the need for further mitigation actions or move a facility off the list.

For example, the appropriate state agency and/or facility manager could capture the following information for future use:

- First floor elevations (for flood-prone properties);
- Physical location (i.e., more than just the street address to allow for positioning the structure or asset relative to known hazard boundaries; for this purpose, the actual latitude and longitude of the structure is preferred);
- Number of stories;
- Roofing material;
- Exterior façade;
- Building use and function; and
- Digital photos of structure and surroundings.

Once this information is collected for each facility, and stored in a database such as the Facilities Management database, the SHMT and/or the facility staff can use this information to validate the original risk assessment results and identify and prioritize possible mitigation actions for facilities clearly at risk.

Note: it may not be practical due to resource limits to secure all the desired data in one step. It may prove more effective to add a few data fields each year for each facility, starting with the more important aspects like physical location and gradually build up an improved data record. As mentioned in preceding plans of action, OHSEP can provide effective technical support via “job-aids” to help capture the right information and enable consistent data entry.

- iii. Support a centralized data repository accessible to state and local agencies as well as interested parties. The Louisiana Geographic Information System Council (LGISC) has been working toward a similar end for all data related issues in the State. OHSEP, as a voting member of LGISC, can request that LGISC establish regular procedures for receiving more detailed information from state agencies that can be used in required regular updates to the Plan (see Section Ten).

However, much like the proposed work with local communities and parishes, the desired long term result is to help position individual state agencies and facility managers to maintain their own information and plans regarding their own facilities. Since OHSEP and the SHMPC have some responsibility for oversight and coordination of these data collection efforts per the requirements of DMA 2000 to maintain eligibility as a “Standard” program and to attain and maintain “Enhanced” status,

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they can help to identify desired types of information to LGISC so that provisions can be made in terms of database development and maintenance by the appropriate state agency.

This effort should also include making sure that the definitions used for various data are as consistent as possible. For example, in determining the physical locations of State-owned structures, it may be most effective to use the same procedures for determining longitude and latitude as the on-going work at the University of New Orleans to develop the repetitive loss property database (see Action Item C.iii.).

Key types of information that have already been identified include:

- Records of disaster damages;
- Spatial locations for specific facilities;
- Status and details regarding mitigation projects (related to on-going efforts by OHSEP to establish a database to track progress and status of Federally funded mitigation grants (see Administrative Guidelines and Procedures in Volume II).

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

3.1 Objectives for supporting local hazard mitigation planning:

- Support hazard mitigation planning at the local and parish level.
- Integrate local mitigation plans into the *State of Louisiana Hazard Mitigation Plan* as part of periodic monitoring, evaluating and updating of the Plan.
- Support increased NFIP / CRS participation.

Plan of Action to address 3.1 Objectives for supporting local mitigation planning:

E. Provide technical support to local communities and parishes for on-going and continuing mitigation planning efforts. The majority of Louisiana parishes are in the midst of completing the first round of DMA 2000 compliant local hazard mitigation plans. Those communities that have not yet finished their plans are currently ineligible for Federal HMGP funding as described in previous sections. It is a priority of OHSEP and the SHMPC to get these plans completed and approved as quickly as possible. However, upon completion of the plans, OHSEP and SHMPC will need to keep the communities and parishes focused on improving any deficiencies in their plans and on implementing the appropriate recommendations. Specific action items include:

- i. Continue to provide plan reviews and technical support to communities and parishes already working on local plans to gain FEMA approval as soon as possible.

Note: on-going work to increase OHSEP staffing and defining responsibilities for public outreach and education efforts (per Plan of Action A.i.) will include continuing current levels of OHSEP support for this type of related technical activities.

- ii. Identify and work with local communities and parishes that have not yet undertaken mitigation plans to apply for grant funding and pursue completion of a plan.
- iii. Work with local communities and parishes that complete and gain FEMA approval for their plans to diligently monitor, evaluate and update their mitigation plans over the next five year cycle.

Note: Since it is a substantial task to work with all the parishes simultaneously, the OHSEP and SHMPC is considering setting up local plan updates on a rotating basis (e.g., 10 - 15 parish plans would come up for review and formal update each year). This would allow the State to spread funding and resource demands out over time but would require that some parishes undertake an update and

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review of their plan before the five year “expiration date” of their approval from FEMA. In all likelihood, there are parishes where this will occur naturally due to availability of improved data before the 5-year cycle is over (e.g., via the University of New Orleans study cited above) or disaster declarations that provide funding opportunities and revised estimates of losses.

- iv. Identify and encourage parishes and communities that would benefit most from increased participation in the NFIP to do so. For example, the results of the Statewide Risk Assessment in Section Five and Appendix E can be used to identify parishes at relatively high risk to floods that are either non-participants or have low CRS rankings.

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

3.2 Objective for supporting state agency hazard mitigation planning:

- Provide information regarding techniques for state agencies to undertake detailed vulnerability and risk assessments for their own planning efforts and prioritization of funding.

Plan of Action to address 3.2 Objective for supporting state agency hazard mitigation planning:

- F. Provide technical support to state agencies for on-going and continuing mitigation planning. State agencies can be subgrantees under the HMGP program and can develop their own agency-specific DMA compliant plans that can be treated as annexes to this Plan. To do so for all state agencies would require an unjustifiable commitment of time for both the agencies and OHSEP. However, for the larger institutions and/or agencies with multiple facilities at risk, this may be a logical way to proceed to address their specific needs.
 - i. In addition to improving the flow of data as described in Plan of Action D., additional follow-up training and technical support should be provided to interested state agencies to help them develop, maintain and implement hazard mitigation plans for their facilities. This support can take the form of:
 - helping state agencies prepare HMGP and PDM planning grant applications (see Administrative Guidelines and Procedures [to be included] in Volume II);
 - sharing existing data and methodologies; and
 - providing plan reviews at key milestones in the process.
 - ii. Educate the State Legislature to establish a State Hazard Mitigation Fund that would provide a state source of pre-disaster hazard mitigation funding to supplement Federal and local sources. It should be noted though that Louisiana statutes prohibit state funding for projects on private property but there are myriad needs for funding public entities’ hazard mitigation needs that such a fund would help satisfy.
 - iii. Pursue the designation of Reserve Funds as part of Implementation Strategies for post-disaster HMGP funding (see Administrative Guidelines and Procedures in Volume II). Reserve Funds would be used for an established list of funding needs (for example, presentation materials for public outreach efforts per Plan of Action A) that could be met by relatively small set-asides in the total hazard mitigation funding.

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Goal 4: The State of Louisiana will pursue opportunities to reduce impacts to the State's manmade and natural environment through construction projects.

4.1 Objective for providing technical assistance

- Provide technical assistance to local communities and parishes regarding best practices for mitigation.

Plan of Action to address 4.1 Objective for providing technical assistance:

- G. Support adoption, implementation and enforcement of higher regulatory standards at the local community and parish level by developing and delivering technical assistance focused on improving the way local communities and parishes approach hazard mitigation. Local governments have multiple potential points of contact with hazard mitigation in their communities. Other objectives under this goal address how communities pursue hazard mitigation directly through their own construction projects. This objective and plan of action address the ways communities can improve the manner in which future development occurs including:
- i. Promote adoption and enforcement of comprehensive planning, zoning (i.e., land development regulations at the local/parish level) and floodplain ordinances.
 - ii. Support adoption of a statewide building code (by seeking support at the community and parish level first).

4.2 Objectives for identifying cost effective projects:

- Facilitate development and administration of project applications that will meet state and Federal guidelines for funding.

Plan of Action to address 4.2 Objective for identifying cost effective projects:

- H. Work with communities, parishes and state agencies to identify, fund and implement cost effective projects. One of the main purposes of the DMA 2000 was to improve the quality of hazard mitigation projects funded by the Federal government. In this context, "quality" is virtually synonymous with "cost effective".
- i. Indicate preferred projects that address hazards identified in the Plan. Appendix H (Best Practices for Mitigation in the State of Louisiana) provides detailed descriptions of recommended mitigation actions that local communities and parishes can undertake to work with the State in achieving the goals and objectives. It is important to note that in this compendium of successful techniques, there are alternatives for mitigation actions that must be evaluated by each community for each situation to determine the best choice. However, the listing and background information indicate to the communities what the State perceives as choices that are most likely to be successful.
 - ii. Provide education at the local level regarding project application "best practices" (which correlates with action items already described for Goals 1 and 2) and reflects on-going improvements by OHSEP to the mitigation grant project application review and approval processes (which **will be** documented in Volume II) including project review criteria that respond to the results of the Plan for pre-disaster funding and to criteria to be developed at the time for post-disaster funding as part of disaster specific implementation strategies. Consistent with the desire for increased quality, the education efforts at the local level should be centered on how to determine a benefit-cost ratio consistent with FEMA guidance. Over time, this will provide communities with a better measure of how likely projects are to be funded and will result in improvements in the success rates for Louisiana communities in competing nationally for pre-disaster mitigation funding.

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4.3 Objectives for State-owned assets:

- Harden and retrofit infrastructure and critical facilities with highest vulnerability rankings.

I. Identify and pursue hazard mitigation projects for at risk State-owned assets. Plan of Action D includes ground-truthing of the ranked critical facilities identified in Section Six of the Plan. Part of the purpose is to lead to good candidate sites for hazard mitigation projects. Setting priorities - beyond simply choosing the sites with the highest potential losses per the Plan methodology - include:

- Pursue hardening and retrofitting of critical facilities south of I-10 as highest priority.
- Looking at the University of New Orleans results and combine with the state building data per the Facilities Management database to determine where state buildings occur within clusters of repetitive loss properties.

Other related work efforts that should be considered as part of this Plan of Action include:

- Continue work to coordinate this Plan's recommendations with the EOP update;
- Provide support for meeting the State's Continuity of Operations Planning (COOP) requirement (due after 1st of the year); and
- Pursue cross-training arrangements and Memorandum of Understandings with other agencies and/or states to provide assistance in the wake of disasters.

8.4 Evaluation of Mitigation Actions

[Note to Draft Plan Reviewers: As noted in the footnote on Page 8-1, Sections 8.4 through 8.6 will be completed after OHSEP, SHMPC and all interested parties review comments regarding this Draft Plan are considered. The point is to come to agreement regarding what the State should include as the major elements in the Mitigation Action Plan. Then it will be possible to undertake an evaluation of plans of action to confirm that they are consistent with the requirements of DMA 2000 and that resources are identified to pursue implementation. This evaluation process will also help the OHSEP and SHMPC confirm what their priorities should be and a possible timeline for implementation (Section 8.5) as well as compile information regarding funding that may be required to provide staffing and technical support (Section 8.6).

The following tables will be developed for each plan of action that is to be included in subsequent versions of the Plan. These tables provide an evaluation of the action items based on factors that are appropriate to the type of action / goals being addressed, i.e., programmatic (Goals 1-3) versus construction (Goal 4) and also satisfy the requirements of DMA 2000 for evaluation of proposed mitigation actions.

Table 8-[tbd]: Summary of Plans of Action

Plan of Action	
Goal / Objective addressed	
Summary Description	
Hazard(s) addressed	
Staffing Requirements (if applicable)	
Responsible Organization	
	Are staff available at present: <input type="checkbox"/> Yes <input type="checkbox"/> No If no, what are the steps that must be undertaken to increase staffing levels?
Estimated Cost (if applicable)	
Funding Source	
	Is funding in place: <input type="checkbox"/> Yes <input type="checkbox"/> No If no, what are the steps that must be undertaken to secure funding?
Timeframe	[i.e., immediate / mid-range / long-term]
Prerequisite	[i.e., any action item that must precede this one to be effective]

Table 8-[tbd]: Evaluation of Mitigation Activities (Activities per Goals 1-3)

Action	Funding in place?	Human resources in place?	Prerequisites in place?
	[i.e., "Yes" or "No"]	[i.e., "Yes" or "No"]	[i.e., "Yes" or "No"]

Table 8-[tbd]: Evaluation of Mitigation Actions (Construction-related per Goal 4)

Action	Cost Effective?	Environmentally Sound?	Technically Feasible?
	[i.e., "Yes" or "No"]	[i.e., "Yes" or "No"]	[i.e., "Yes" or "No"]

8.4 Prioritization of Mitigation Actions

[Note to Draft Plan Reviewers: The following is subject to change based on comments received and the evaluation of the actions to be included in the Plan. However, the generalized prioritization of efforts presented in the first few paragraphs is considered consistent with the basic direction of the Plan.]

As noted at the beginning of Section 8.3, the list of identified mitigation actions is much more extensive than will be attainable in three years. Prioritization was necessary to make it clear which actions are either fundamentally more important than others or which actions need to precede others for progress to occur.

Two important observations can be made from the evaluation of proposed actions in the preceding section that are reflected in the priorities for mitigation actions. There is a need for increased staff and stable funding at OHSEP and the State in general to provide technical support and to fund mitigation projects. Therefore, in very general terms, the priorities for the Plan are based on first addressing mitigation actions related to the non-construction (or programmatic) aspects of the Plan and then focusing attention increasingly on construction activities including:

- add positions and/or provide training for full-time staff dedicated to the implementation of the recommendations in this Plan within OHSEP and other agencies as necessary...
- complete current round of hazard mitigation planning at the state and local levels...
- continue OHSEP improvements in administration of existing mitigation programs...
- increase local community, parish, and state agency awareness, data and capabilities...

...which will in turn yield more effective hazard mitigation project applications and implementation.

The specific order and sequencing of action items to be implemented as a result of this Plan are identified in the following tentative timetable.

Tentative Timetable

[Note to Draft Plan Reviewers: As noted, a summary timeline will be developed (with appropriate assumptions and caveats) to show how the prioritized actions are anticipated to be undertaken over the next three years.]

8.5 Funding Sources

[Note to Draft Plan Reviewers: A summary tabulation of funding will be developed (with appropriate assumptions and caveats) for the prioritized action items to show:

- how much money is needed;
- the likely sources (based on current and potential sources of federal, State local or private funding to be added); and
- when the funding needs to be in place to meet the timetable to be identified under 8-4.

Also, if possible, a corollary table will be prepared (or columns added to the funding table) to show human resources that are needed beyond what is already in place with the responsible parties.]

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